

**BEFORE**  
**THE PUBLIC SERVICE COMMISSION**  
**OF SOUTH CAROLINA**  
**DOCKET NO. 2013-392-E**

IN RE: Joint Application of Duke Energy ) DIRECT TESTIMONY OF DANIEL  
Carolinas, LLC and North Carolina ) EWAN, ON BEHALF OF  
Electric Membership Corporation for a ) INTERVENOR, INVENERGY  
Certificate of Environmental ) THERMAL DEVELOPMENT LLC.  
Compatibility and Public Convenience )  
and Necessity for the Construction and )  
Operation of a 750 MW Combined )  
Generating Plant Near Anderson, SC. )

1 **Q. PLEASE STATE YOUR FULL NAME, BUSINESS ADDRESS AND POSITION**  
2 **OF EMPLOYMENT.**

3 **A.** My name is Daniel Ewan. My business address is One South Wacker, Suite 1900, Chicago,  
4 IL. I am employed with Invenergy Thermal Development LLC, (“Invenergy”) of  
5 Chicago, IL., as Vice President, Thermal Development.  
6

7 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**  
8 **EXPERIENCE.**

9 **A.** I hold a Bachelor of Science Degree from Iowa State University and a Masters of Business  
10 Administration degree from the University of Chicago. I have been employed by Invenergy  
11 since 2009, and have over 30 years of experience in the energy and utilities industry,  
12 including various roles in business and project development. In these roles, I have led the  
13 development, construction, and startup efforts of numerous energy centers throughout the  
14 United States. Before joining Invenergy, I served as Director of Project Development at  
15 Calpine Corporation, Project Manager at SkyGen Energy, LLC, Project Manager at ABB  
16 Impell Corporation, and various roles at Commonwealth Edison.

1 As Vice President, Development for Invenergy, I am responsible for thermal and cogeneration  
2 activities for Invenergy's development businesses. In this role I have responsibility for the  
3 business and project development of our thermal and cogeneration efforts, including oversight  
4 of project management, engineering, permitting, financing, equipment procurement and  
5 construction activities.

6  
7 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY TODAY?**

8 **A.** My testimony is in support of the Intervention of Invenergy in Docket 2013-392-E.  
9

10 **Q. PLEASE PROVIDE A SUMMARY OF INVENERGY'S OPERATIONS.**

11 **A.** Invenergy is an independent power producer with an international platform. Invenergy  
12 develops, owns, and operates wind, solar and natural gas power generation facilities in  
13 North America and Europe. The company was founded in 2001 and has a proven track record  
14 of establishing and maintaining longstanding, profitable relationships with utilities, suppliers,  
15 and the local communities where our projects are located.

16  
17 **Q. PLEASE DESCRIBE INVENERGY'S HISTORY.**

18 **A.** Invenergy has been in successful, continuous operation since then, due in large part  
19 to an executive management team with almost thirty years of successful power  
20 generation development and operation and a development, operations and  
21 administrative team of nearly 500 employees, globally.

22  
23 **Q. PLEASE DESCRIBE SOME OF INVENERGY'S ACHIEVEMENTS AND**  
24 **RECOGNITIONS.**

25 **A.** In 2013, Invenergy was honored by Power Finance and Risk as the Project Finance Borrower  
26 of the Year, and in 2011, honored by the American Wind Energy Association for Outstanding  
27 Achievement in Operations. In 2005 and 2008, Invenergy projects were named as American  
28 deals of the year by Project Finance International. We are most proud of the long-term  
29 successful relationships Invenergy has with the people who live in the areas where we have  
30 facilities. We think this means we're good neighbors and, really, that is a greater achievement  
31 than industry recognitions.

1 **Q. PLEASE PROVIDE AN OVERVIEW OF INVENERGY'S GENERATION**  
2 **PORTFOLIO.**

3 **A.** Along with its affiliated companies, Invenergy is a clean energy generation leader.  
4 Invenergy's wind energy portfolio consists of 3,479 MWs of operating projects, 603 MWs of  
5 projects in construction, and over 500 MWs of projects under contract. Invenergy is North  
6 America's largest independent wind power generation company. Invenergy's portfolio  
7 includes more than 2,200 MW of natural gas-fueled electric generating projects in operation,  
8 including greenfield projects initiated by the company, as well as facilities Invenergy  
9 acquired and developed. Invenergy is developing new environmentally-friendly natural  
10 gas-fueled electric generating facilities across North America. These projects are being  
11 designed to provide economic and reliable power, with minimal impact on air and water  
12 resources.

13

14 **Q. PLEASE DESCRIBE INVENERGY'S GEOGRAPHIC SCOPE.**

15 **A.** Invenergy has developed over 7,500 MWs of utility-scale renewable and natural  
16 gas-fueled power generation facilities in the United States, Canada, and Europe.  
17 The closest "neighboring" facilities to South Carolina are a natural-gas facility in Hardee,  
18 Florida and a wind farm in Buffalo Mountain, Tennessee.

19

20 **Q. PLEASE DESCRIBE THE GEOGRAPHIC SCOPE OF YOUR NATURAL GAS**  
21 **FACILITIES, IN PARTICULAR.**

22 **A.** Our operating gas fired facilities projects are, of course, Hardee in Florida that I just  
23 mentioned, Cannon Falls Energy Center in Minnesota, Grays Harbor Energy Center in  
24 Washington, Spindle Hill Energy Center in Colorado, and St. Clair Energy Centre in Ontario,  
25 Canada. We have additional projects in various stages of development in the United States  
26 and Canada.

27

28 **Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY AND EXHIBITS OF**  
29 **JANICE HAGER OF DUKE, PRE-FILED IN THIS DOCKET?**

30 **A.** Yes, in full and more than once.

1 **Q. DO YOU AGREE THAT THE DIRECT TESTIMONY AND EXHIBITS OF MS.**  
2 **HAGER SUPPORT THE RELIEF SOUGHT BY PETITIONERS IN THIS DOCKET?**  
3 **IF NOT, PLEASE EXPLAIN.**

4 **A.** No. Ms. Hager's testimony on behalf of Duke offers only a cursory, very high level overview  
5 about the entirely internal, company-governed evaluation process Duke used to determine that,  
6 out of 33 projects proposed by other companies, the company's own bid was the best for  
7 ratepayers.

8

9 **Q. PLEASE ELABORATE ON THIS INTERNAL EVALUATION PROCESS.**

10 **A.** Duke began a Request for Proposal process in October 2012. Receipt of the bids and  
11 communication with bidders was handled through a third party evaluator. But, Duke conducted  
12 an entirely internal evaluation of the bids by Duke, after some level of consultation with the  
13 third party evaluator about their own internally developed bid analysis methodology. The entire  
14 process was devoid of transparency and in stark contrast to our experience in bid processes  
15 in other states with other utilities.

16

17 **Q. PLEASE DESCRIBE MORE THIS "STARK CONTRAST."**

18 **A.** Again, it was devoid of transparency, and it was conducted entirely internally.

19 There was no assurance that the internal Duke evaluation team conducted their analysis of all  
20 34 bids, including Duke's, without further communication or influence from the internal Duke  
21 team that developed the bid. Last, there was no opportunity for the bidders, other than maybe  
22 Duke itself, to review Duke's interpretations or the bids and the assumptions made in modeling  
23 them.

24

25 **Q. PLEASE DESCRIBE WHAT YOU MEAN ABOUT INTERPRETATIONS AND**  
26 **ASSUMPTIONS.**

27 **A.** The process described by Duke includes complex modeling that considers both production  
28 costs and fixed costs to determine the lowest cost option for Duke ratepayers. In order to  
29 accurately perform such complex modeling, assumptions are required. Those assumptions are  
30 essential to modeling of each project. Selection of those assumptions can strongly affect the  
31 outcome of the modeling and, thereby, the entire bid evaluation.

1 **Q. PLEASE DESCRIBE WHAT INVENERGY UNDERSTANDS OF THE**  
2 **ASSUMPTIONS THAT WERE MADE.**

3 **A.** I can't. Ms. Hager's testimony does not provide adequate details of how the fixed costs of each  
4 bid were interpreted or how the assumptions were modeled. Without this information, it is  
5 impossible for anyone, notably the Commission, to understand how the bids were internally  
6 scored by Duke, much less pass judgment on whether that internal scoring was based on  
7 accurate, properly modeled assumptions. Perhaps there is more detail in her Confidential  
8 testimony. It certainly is not in the publically available version and the bids scored.

9

10 **Q. PLEASE DESCRIBE "ASSUMPTIONS" MORE FULLY.**

11 **A.** Production costs are highly dependent on assumptions governing heat rates, ambient  
12 temperature effects, fuel costs, timing of expenditures, operations and maintenance expense  
13 assumptions, end of contract term assumptions, etc. Each assumption can have a significant  
14 influence on the modeling and, hence, scoring and evaluation. Sensitivities around those  
15 assumptions should also be evaluated. In similar proceedings in other states, the process is more  
16 transparent, independently (not internally) conducted. Each bidder is allowed to review the  
17 inputs, assumptions and outputs of an independent third party evaluator's economic analysis.  
18 This allows bidders the opportunity to correct any errors of interpretation inadvertently made by  
19 the evaluator. Sensitivities are then run so that the bidders and, most importantly, regulators can  
20 understand how sensitive the results were to various inputs. The regulators can then fully  
21 evaluate the modeling and the outcome. I understand Georgia uses a similar transparent and  
22 independent process and even requires filing of testimony from the independent third party  
23 evaluator.

24

25 **Q. PLEASE CONTRAST THIS TO THE INTERNAL DUKE PROCESS.**

26 **A.** Duke's internal evaluation process was fundamentally different. There was no ability to review  
27 the assumptions Duke made internally about each bid. Ms. Hager's testimony does not provide  
28 adequate detail about those assumptions. Ms. Hager's testimony also does not address the risk  
29 associated with Duke's non fixed price cost, versus the bidders' fixed price cost.

1 **Q. PLEASE DESCRIBE THE IMPORTANCE OF THIS.**

2 **A.** In the event of project cost overruns, external bidders would not receive any additional  
3 compensation but, here, there is no assurance of project costs and the potential exists for cost  
4 overruns as Duke has experienced in Indiana with their Edwardsport project. In this proceeding,  
5 Duke is not addressing the cost of their facility. Presumably, Duke will later request rate relief  
6 for whatever the final project cost at the completion of construction. This very present risk of  
7 cost overrun in Duke's self-bid, is not factored into their evaluation. This risk is wholly absent  
8 with an external bid and should be weighted appropriately in order to provide full assurance that  
9 the "least cost" project was chosen.  
10

11 **Q. PLEASE DESCRIBE YOUR UNDERSTANDING OF THE ROLE OF THE THIRD**  
12 **PARTY EVALUATOR IN THIS PROCESS.**

13 **A.** While Ms. Hager has indicated that a third party evaluator was engaged, there is no evidence  
14 that the third party actually participated in the evaluation. Ms. Hager indicated in her testimony,  
15 "Duke Energy Carolinas performed an initial analysis to determine the relative value of the bids  
16 and selected seven bids for the short-list in February 2013." This means that Duke performed  
17 the evaluation, not a third party evaluator. And, there is no testimony from the third party  
18 evaluator. Again, testimony from the third party evaluator is common in other states. Without a  
19 true third party evaluation, there is no reasonable assurance that an impartial evaluation  
20 has truly been completed, especially when the evaluation results in Duke selecting its  
21 own bid. In summary, the lack of transparency in the Duke process and the lack of detail in  
22 Ms. Hager's testimony gives the Commission, Invenergy, other bidders and, most importantly,  
23 Duke ratepayers no assurance that the bids were compared on "apples-to-apples" basis and,  
24 therefore, no assurance that the lowest cost option was selected.  
25

26 **Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY AND EXHIBITS OF**  
27 **MARK LANDSEIDEL OF DUKE, PRE-FILED IN THIS DOCKET?**

28 **A.** Yes.

1 **Q. DO YOU BELIEVE THE DIRECT TESTIMONY AND EXHIBITS OF MR.**  
2 **LANDSEIDEL SUPPORTS THE RELIEF SOUGHT BY DUKE AND THE NCEMC IN**  
3 **THIS DOCKET? IF NOT, PLEASE EXPLAIN.**

4 **A.** No. While the Landseidel testimony indicates that project costs have been estimated, the  
5 details are provided under separate cover as proprietary and confidential and as such we have  
6 no way of knowing how detailed those estimates might be. In describing the proposed project,  
7 Mr. Landseidel only discusses the capital cost of the project and interconnection costs in very  
8 general terms. Mr. Landseidel has not indicated what level of contingency has been included  
9 in their capital costs and has not indicated what will happen if costs exceed their estimate. In  
10 the event that Duke's cost exceeds the estimates assumed in their evaluation of bidders, it  
11 might very well turn out that one or more of the bidders proposals is in fact the lowest cost  
12 alternative.

13

14 **Q. DOES DUKE AND THE NCEMC'S JOINT APPLICATION PROVIDE THIRD**  
15 **PARTIES, WITH A FULL DISCUSSION AND DISCLOSURE OF THE FACTORS**  
16 **BEHIND DUKE'S DECISION TO MOVE FORWARD WITH THE NCEMC, AND**  
17 **SELF-BUILD?**

18 **A.** No. Duke and its third party evaluator did not solicit any input or clarifications from  
19 Invenergy with regard to its proposal nor did they request any confirmation that they were  
20 modeling the project correctly in their analysis and comparison to other projects. After  
21 conclusion of their analysis, Duke's third party evaluator notified Invenergy by email that  
22 Duke has determined that they will not continue further into detailed negotiations with our  
23 proposal. No additional details were provided. Duke submitted their request for CPCN  
24 approval three weeks later.

25

26 **Q. HOW IS YOUR EXPERIENCE DIRECTLY RELATED TO THE SUBJECT**  
27 **MATTER OF THIS DOCKET?**

28 **A.** Invenergy has developed, constructed and operates natural gas fired generating independent  
29 power projects in various locations in the United States and Canada.

1 **Q. PLEASE PROVIDE A SUMMARY OF INVENERGY'S PARTICIPATION**  
2 **IN DUKE'S RFP OF OCTOBER 26, 2012.**

3 **A.** Invenergy submitted a tolling agreement proposal on November 26, 2012 to Duke Energy  
4 Carolinas in response to Duke's 2012 Request for Proposal for Long Term Capacity and  
5 Energy issued October 26, 2012. Invenergy's base proposal is for the development of a 715  
6 MW 2x1 combined cycle capacity at summer peak conditions at a new facility to be located in  
7 Anderson County, South Carolina for a 20 year term. In February 2013, Invenergy was  
8 notified that their project had been reviewed and selected for a short list of bids for further  
9 evaluation. After notification in early May 2013, and at the request of Duke, Invenergy  
10 submitted refreshed pricing on May 29, 2013 assuming a revised commercial operation date  
11 of June 1, 2017. On October 2, 2013, Invenergy was notified that Duke had determined that  
12 they would not continue further detailed negotiations with Invenergy's proposal.

13  
14 **Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

15 **A.** Yes.